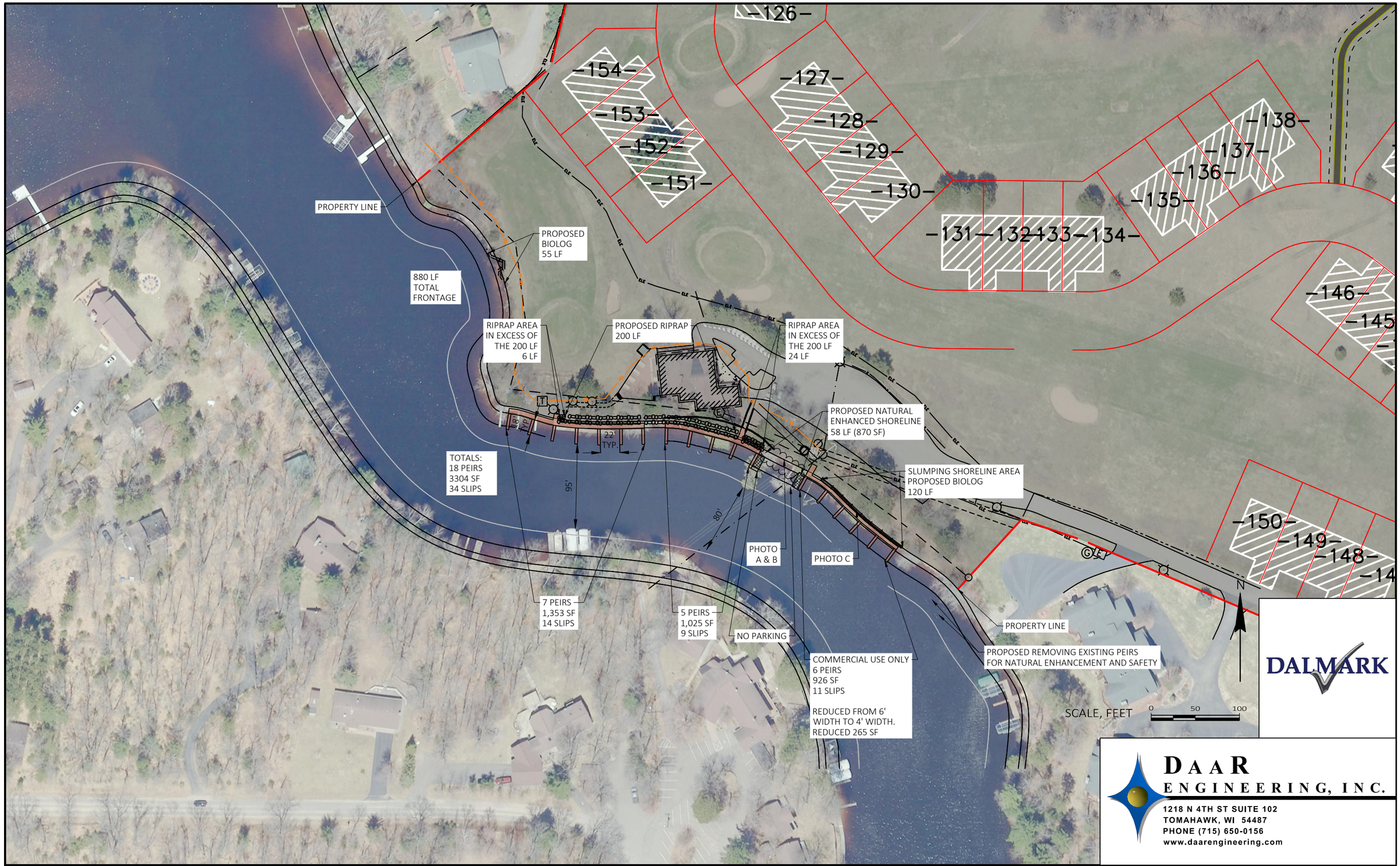


DALMARK

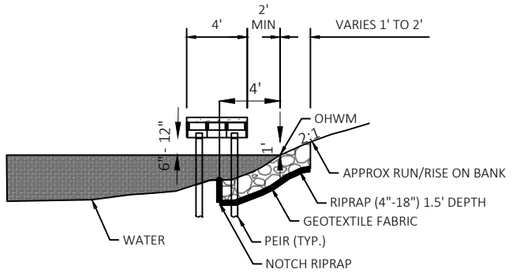
DAAR
ENGINEERING, INC.
1218 N 4TH ST SUITE 102
TOMAHAWK, WI 54487
PHONE (715) 650-0156
www.daarengineering.com

PROJECT: THE CROSSING AT LAKE FOREST	TOWN: WASHINGTON	COUNTY: VILAS	DNR DOCK PERMIT EXHIBIT	SHEET	E

FILE NAME :
LAYOUT NAME - Plan 1 IN 100 FT

PLOT DATE : 6/5/2023 1:21 PM
PLOT BY : GREG BUBOLZ
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



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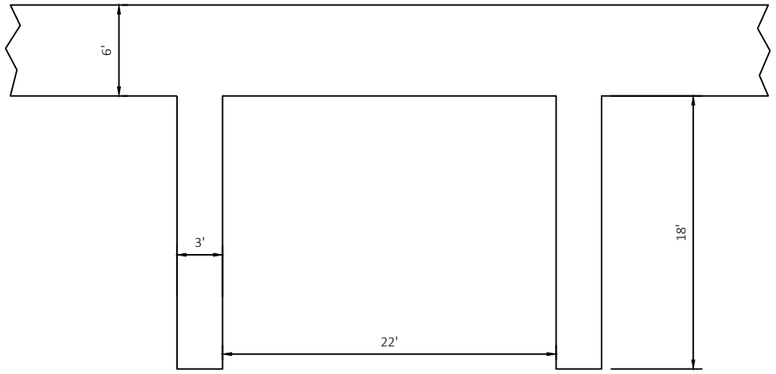
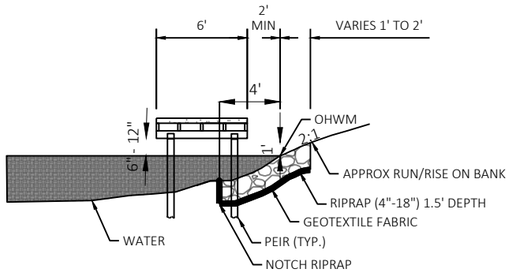


FINISHED TYPICAL DOCK DIMENSIONS



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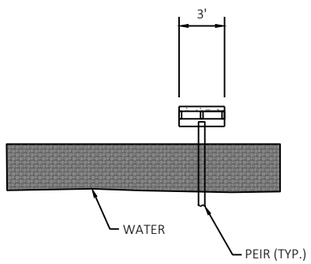

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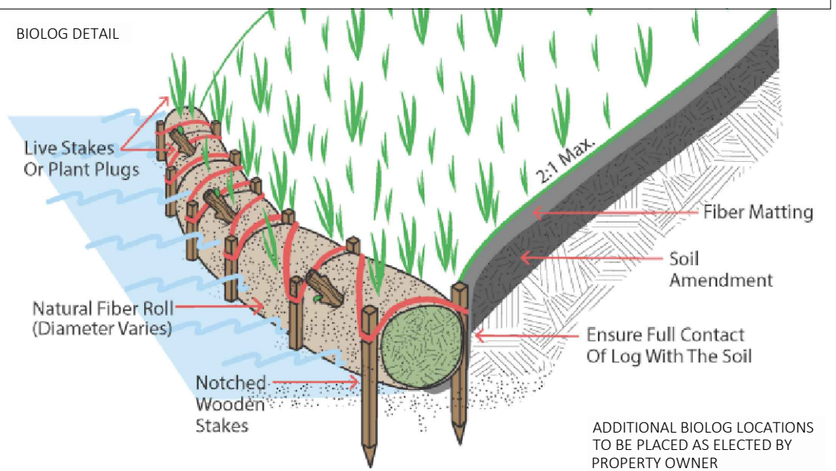
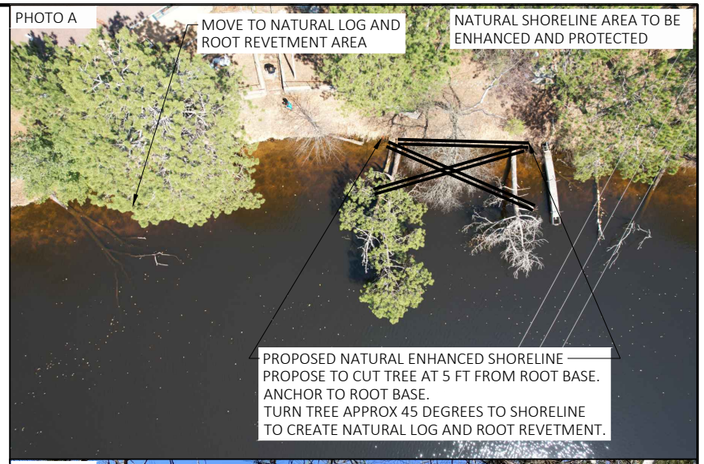


ADDITIONAL BIOLOG LOCATIONS TO BE PLACED AS ELECTED BY PROPERTY OWNER



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PROJECT:	TOWN:	COUNTY:		SHEET
THE CROSSING AT LAKE FOREST	WASHINGTON	VILAS	DNR DOCK PERMIT EXHIBIT	E

FILE NAME :
LAYOUT NAME - Plan 1 IN 100 FT (2)
PLOT DATE : 6/5/2023 1:23 PM
PLOT BY : GREG BUBOLZ
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

Erosion Intensity (EI) Score Worksheet

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Notice:, This data form is required under ch. NR 328, Wis. Adm. Code when reporting Erosion Intensity (EI) Scores. Personally identifiable information included on this form will be used to contact you and is not intended to be used for other purposes. It may be made available to requesters under Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

Section I: Landowner Information

Name	Contact Person
North Development LF, LLC	Zachary Nichols
Mailing Address	**Title**
12220 State Line Road	Project Manager

City	State	ZIP Code	Telephone Number (include area code)
Leawood	KS	66209	816-215-6620

Email Address	Fax Number
zac@dalmarkgroup.com	816-373-1975

Section II: Contractor Information (if currently known)

Name	Contact Person
Unknown	
Mailing Address	**Title**

City	State	ZIP Code	Telephone Number (include area code)

Email Address	Fax Number

Section III: Site Information

Local Address	Waterway Name
3801 Eagle Waters Road	Eagle Lake / Voyageur Lake Thoroughfare

¼ / ¼	¼	Section	Township	Range E / W			County
SE	NE	26	40 N	10E	☐ City ● Town ☐ Village of	Washington	Vilas

Location Description

Section IV: Certification

I hereby certify that the information contained herein is true and accurate. I am the owner of the riparian property or am the duly authorized representative and may sign this data submission on behalf of the owner(s) of said property. I have read and understand all data conditions listed in this form. I have conducted the monitoring project to comply with these conditions. I understand that incorrect information may result in a Departmental determination that the data submission herein is null and void under the provisions of ch. 30, Wis. Stats.

Landowner Printed Name	Telephone Number (include area code)
Zachary Nichols	816-215-6620
Landowner Signature	**Date Signed**

Complete below if permit application was prepared by someone other than the landowner. However, to be valid, the certification above must be signed by the landowner.

Preparer Printed Name	Firm
Gregory Bubolz	DAAR Engineering, Inc.
Mailing Address	**Title**
1218 N 4th Street Suite 102	Project Engineer

City	State	ZIP Code	Telephone Number (include area code)
Tomahawk	WI	54487	715-650-0156

Signature of Preparer	Date Signed

Section V: Erosion Intensity (EI) Score Worksheet.

Applicants and department staff shall use this worksheet to calculate erosion intensity pursuant to s. NR 328.08(2). Where an applicant or the department believes that, as a result of site conditions, storm-wave height as calculated in sub. (1) may inaccurately predict the degree of erosion, the erosion intensity score may be calculated to determine erosion. When the department or applicants assess erosion intensity (EI) at the shore protection site they shall apply methods outlined in this worksheet. Wherever EI and storm-wave height result in different energy categories, the site shall be placed in the category as determined by EI.

SHORELINE VARIABLES	DESCRIPTIVE CATEGORIES EROSION INTENSITY VALUE IS LOCATED IN PARENTHESIS ON LEFT SIDE OF EACH CATEGORY BOX							ASSIGNED EI
AVERAGE FETCH[1]-, average distance (miles), across the open water to the opposite shore measure 45^0 other side of the perpendicular to the shoreline.	(0) <1/10	(2) 1/10 – 1/3	(4) 1/3-1	(7) 1 –3	(10) 3-10	(13) 10-30	(16) >30	0
DEPTH AT 20 FEET, Depth of water (feet) 20 feet from shoreline	(1) <1	(2) 1-3	(3) 3-6	(4) 6-12	(5) >12			3
DEPTH AT 100 FEET, depth of water (feet) 100 feet from shoreline	(1) <1	(2) 1-3	(3) 3-6	(4) 6-12	(5) >12			0
BANK HEIGHT[2], height of bank (feet), measure from toe of the bank to top of the bank-lip.	(1)<1	(2) 1-5	(3) 5-10	(4) 10-20	(5) >20			2
BANK COMPOSITION composition and degree of cementation of the sediments	(0) rock, marl, tight clay, well cemented sand (dig with a pick)		(7) soft clay, clayey sand, moderately cemented (easily dug with a knife)		(15) uncemented sands or peat (easily dug with your hand)			7
INFLUENCE OF ADJACENT STRUCTURES, likelihood that adjacent structures are causing flank erosion at the site	(0) no hard armoring on either adjacent property	(1) hard armoring on one adjacent property	(2) hard armoring on both adjacent properties	(3) hard armoring on one adjacent property with measurable recession	(4) hard armoring on both adjacent properties with measurable recession adjacent to both structures			0
AQUATIC VEGETATION[3] type and abundance of vegetation occurring in the water off the shoreline	(0) rocky substrates unable to support vegetation.	(1) dense or abundant emergent, floating or submerged vegetation		(4) scattered or patchy emergent, floating or submergent vegetation	(7) lack of emergent, floating or submergent vegetation			7
BANK VEGETATION, type and abundance of the vegetation occurring on the bank face and immediately on top of the bank lip	(0) bank compose of rocky outcropping unable to support vegetation		(1) dense vegetation, upland trees, shrubs and grasses, including lawns	(4) clumps of vegetation alternating with areas lacking vegetation	(7) lack of vegetation (cleared), crop or agricultural land			1
BANK STABILITY, The degree to which bank and adjacent area (within 10 feet of the bank-lip) is stabilized by natural ground, shrub, and canopy vegetation (outside a 10' pier access corridor). Human disturbance is typified by tree removal, brushing, mowing, and lawn establishment.	(0) established lawn with few canopy trees	(1) established lawn with moderate to dense canopy trees	(4) moderate to dense natural ground vegetation and canopy trees with shrub layer substantially reduced; or few canopy trees with moderate to dense natural shrub layer.		(7) moderate to dense canopy trees with moderate to dense natural shrub layer; or other natural features prevents establishment of vegetation.			4
SHORELINE GEOMETRY general shape of the shoreline at the point of interest plus 200 yards on either side.	(1) coves or bays		(4) irregular shoreline or straight shoreline		(8) headland, point, or island			4
SHORE ORIENTATION[4] geographic direction the shoreline faces	(0) < 1/3 mile fetch	(1) north to east to south-southeast (349^0-360^0, 1^0-168^0)		(4) south to west-southwest (169^0-258^0)	(8) west to north-northwest (259^0-349^0)			1
BOAT WAKES[5] proximity to and use of boat channels	(1) no channels within 100 yards, broad open water body, or constricted shallow water body; or channels within no-wake zones		(6) thoroughfare within 100 yards carrying limited traffic, or thoroughfare 100 yards to ½ mile offshore carrying intensive traffic		(12) thoroughfare within 100 yards carrying intensive traffic (unregulated boating activity)			12
EROSION INTENSITY SCORE (EI) →								41